

AMENDMENTS TO THE CLAIMS

Please cancel claims 1-5 and 11-13 without prejudice or disclaimer of the underlying subject matter, and add claims 17-26 as set forth below.

Claims 1-5 are CANCELED.

6. (CURRENTLY AMENDED) An optical pickup device comprising:

a first light source for emitting a first light beam having a first wavelength;

a second light source for emitting a second light beam having a second wavelength different from the first wavelength;

an objective lens for ~~focussing~~focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first matching to the first wavelength of that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate;

a photodetector for detecting the light beam focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; and

a diffraction element having a pair of plates of a medium and arranged on the light path from the signal recording surfaces of the two pieces of optical recording medium to the photodetector, each of said plates carrying a diffraction grating formed on one of the surface planes;

at least either the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the first type or the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the second type and being diffracted by the diffraction element, wherein the first reflected light beam and the second reflected light beam being ~~focussed~~focused to a same spot on the light receiving surface of the photodetector.

7. (CURRENTLY AMENDED) An optical pickup device comprising:

a first light source for emitting a first light beam having a first wavelength;
a second light source for emitting a second light beam having a second wavelength different from the first wavelength;
an objective lens for ~~focussing~~focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first type matching to the first wavelength or that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate;
a photodetector for detecting the light beam ~~focussed~~focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; and
a diffraction element having a pair of plates of a medium and arranged on the light path from the light sources to the photodetector by way of the two pieces of optical recording medium, each of said plates carrying a diffraction grating formed on one of the surface planes;
each of the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the first type and the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the second type, and being diffracted by the diffraction element, wherein the first reflected light beam and the second reflected light beam ~~being focussed~~are focused to a same spot on the light receiving surface of the photodetector.

8. (CURRENTLY AMENDED) An optical pickup device comprising:
 - a first light source for emitting a first light beam having a first wavelength;
 - a second light source for emitting a second light beam having a second wavelength different from the first wavelength;
 - an objective lens for ~~focussing~~focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first type matching to the first wavelength or that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate;

a photodetector for detecting the light beam ~~focussed~~focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; and

a diffraction element having a pair of plates of a medium and arranged on the light path from the light sources to the signal recording surfaces of the two pieces of optical recording medium, each of said plates carrying a diffraction grating formed on one of the surface planes;

at least either the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the first type or the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the second type, and being diffracted by the diffraction element, wherein the first reflected light beam and the second reflected light beam being ~~focussed~~focused to a same spot on the light receiving surface of the photodetector.

9. (CURRENTLY AMENDED) An optical disc device comprising:

a rotary operating mechanism for driving one or more than one optical discs operating so many pieces of optical recording medium as to rotate; and

an optical pickup device arranged opposite to the signal recording surfaces of the one or more than one optical discs driven to rotate by said rotary operating mechanism;

said optical pickup device comprising:

a first light source for emitting a first light beam having a first wavelength;

a second light source for emitting a second light beam having a second wavelength different from the first wavelength;

an objective lens for ~~focussing~~focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first type matching to the first wavelength or that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate;

a photodetector for detecting the light beam ~~focussed~~focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium

of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; and

a diffraction element arranged on the light path from the light sources to the photodetector by way of the two pieces of optical recording medium;

at least either the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the ~~reflecting~~ signal recording surface of the optical recording medium of the first type or the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the ~~reflectingsignal~~ recording surface of the optical recording medium of the second type and being diffracted by the diffraction element, wherein the first reflected light beam and the second reflected light beam being ~~focussed~~ focused to a same spot on the light receiving surface of the photodetector.

10. (CURRENTLY AMENDED) An optical disc device comprising:

a rotary operating mechanism for driving one or more than one optical discs operating so many pieces of optical recording medium as to rotate; and

an optical pickup device arranged opposite to the signal recording surfaces of the one or more than one optical discs driven to rotate by said rotary operating mechanism; said optical pickup device comprising:

a first light source for emitting a first light beam having a first wavelength;

a second light source for emitting a second light beam having a second wavelength different from the first wavelength;

an objective lens for ~~focussing~~ focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first type matching to the first wavelength or that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate;

a photodetector for detecting the light beam ~~focussed~~ focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; and

a diffraction element arranged on the light path from the light sources to the photodetector by way of the two pieces of optical recording medium;

each of the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the first type and the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the second type and being diffracted by the diffraction element, the first reflected light beam and the second reflected light beam being ~~focussed~~focused to a same spot on the light receiving surface of the photodetector.

Claims 11-13 are CANCELED.

14. (CURRENTLY AMENDED) An optical disc device comprising:

- a rotary operating mechanism for driving one or more than one optical discs operating so many pieces of optical recording medium as to rotate, and

- an optical pickup device arranged opposite to the signal recording surfaces of the one or more than one optical discs driven to rotate by said rotary operating mechanism;

- said optical pickup device comprising:

- a first light source for emitting a first light beam having a first wavelength;

- a second light source for emitting a second light beam having a second wavelength different from the first wavelength.

- an objective lens for ~~focussing~~focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first type matching to the first wavelength or that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate;

- a photodetector for detecting the light beam ~~focussed~~focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; and

- a diffraction element having a pair of plates of a medium and arrange on then light path from the signal recording surfaces of the two pieces of optical recording medium to the photodetector, each of said plates carrying a diffraction grating formed on one of the surface planes;

at least either the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the first type or the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the second type and being diffracted by the diffraction element, wherein the first reflected light beam and the second reflected light beam being focused to a same spot on the light receiving surface of the photodetector.

15. (CURRENTLY AMENDED) An optical disc device comprising:

a rotary operating mechanism for driving one or more than one optical discs operating as so many pieces of optical recording medium to rotate; and

an optical pickup device arranged opposite to the signal recording surfaces of the one or more than one optical discs driven to rotate by said rotary operating mechanism;

said optical pickup device comprising:

a first light source for emitting a first light beam having a first wavelength;

a second light source for emitting a second light beam having a second wavelength different from the first wavelength;

an objective lens for ~~focussing~~focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first type matching to the first wavelength or that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate;

a photodetector for detecting the light beam ~~focussed~~focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; and

a diffraction element having a pair of plates of a medium and arranged on the light path from the light sources to the photodetector by way of the two pieces of optical recording medium, each of said plates carrying a diffraction grating formed on one of the surface planes;

each of the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the ~~reflecting-signal recording surface of the optical recording medium of the first type~~ and the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the ~~reflecting-signal recording surface of the optical recording medium of the second type~~ and being diffracted by the diffraction element, wherein the first reflected light beam and the second reflected light beam being ~~focussed~~-focused to a same spot on the light receiving surface of the photodetector.

16. (CURRENTLY AMENDED) An optical disc device comprising:

a rotary operating mechanism for driving one or more than one optical discs operating so many pieces of optical recording medium as to rotate; and

an optical pickup device arranged opposite to the signal recording surfaces of the one or more than one optical discs driven to rotate by said rotary operating mechanism;

said optical pickup device comprising:

a first light source for emitting a first light beam having a first wavelength;

a second light source for emitting a second light beam having a second wavelength different from the first wavelength;

an objective lens for ~~focussing~~-focusing said first light beam or said second light beam to the signal recording surface of an optical recording medium of a first type matching to the first wavelength or that of an optical recording medium of a second type matching to the second wavelength, whichever appropriate;

a photodetector for detecting the light beam ~~focussed~~-focused on the signal recording surface of the optical recording medium of the first type or that of the optical recording medium of the second type, whichever appropriate, by the objective lens and reflected by the signal recording surface; and

a diffraction element having a pair of plates of a medium and arranged on the light path from the light sources to the signal recording surfaces of the two pieces of optical recording medium, each of said plates carrying a diffraction grating formed on one of the surface planes;

at least either the first light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the first type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the first type or the second light beam adapted to be used for reading information signals from the signal recording surface of the optical recording medium of the second type and reflected by the ~~reflecting~~signal recording surface of the optical recording medium of the second type and being diffracted by the diffraction element, the first reflected light beam and the second reflected light beam being ~~focussed~~focused to a same spot on the light receiving surface of the photodetector,

17. (NEW) The optical pickup of device of claim 6, wherein the first plate of said diffraction element has a first diffraction angle and the second plate of said diffraction element has a second diffraction angle, and

wherein the first and second diffraction angles is regulated by adjusting the distance between the first plate and second plate of said diffraction element.

18. (NEW) The optical pickup of device of claim 7, wherein the first plate of said diffraction element has a first diffraction angle and the second plate of said diffraction element has a second diffraction angle, and

wherein the first and second diffraction angles is regulated by adjusting the distance between the first plate and second plate of said diffraction element.

19. (NEW) The optical pickup of device of claim 8, wherein the first plate of said diffraction element has a first diffraction angle and the second plate of said diffraction element has a second diffraction angle, and

wherein the first and second diffraction angles is regulated by adjusting the distance between the first plate and second plate of said diffraction element.

20. (NEW) The optical pickup of device of claim 9, wherein the first piece of said diffraction element has a first diffraction angle and the second piece of said diffraction element has a second diffraction angle, and

wherein the first and second diffraction angles are regulated by adjusting the distance between the first plate and second plate of said diffraction element.

21. (NEW) The optical pickup device of claim 9, wherein said diffraction element is arranged on one of a forward light path or backward light path of said light path from the light sources to the photodetector.

22. (NEW) The optical pickup of device of claim 10, wherein the first piece of said diffraction element has a first diffraction angle and the second piece of said diffraction element has a second diffraction angle, and

wherein the first and second diffraction angles are regulated by adjusting the distance between the first plate and second plate of said diffraction element.

23. (NEW) The optical pickup device of claim 10, wherein said diffraction element is arranged on one of a forward light path or backward light path of said light path from the light sources to the photodetector.

24. (NEW) The optical pickup of device of claim 14, wherein the first plate of said diffraction element has a first diffraction angle and the second plate of said diffraction element has a second diffraction angle, and

wherein the first and second diffraction angles are regulated by adjusting the distance between the first plate and second plate of said diffraction element.

25. (NEW) The optical pickup of device of claim 15, wherein the first plate of said diffraction element has a first diffraction angle and the second plate of said diffraction element has a second diffraction angle, and

wherein the first and second diffraction angles are regulated by adjusting the distance between the first plate and second plate of said diffraction element.

26. (NEW) The optical pickup of device of claim 16, wherein the first plate of said diffraction element has a first diffraction angle and the second plate of said diffraction element has a second diffraction angle, and

wherein the first and second diffraction angles are regulated by adjusting the distance between the first plate and second plate of said diffraction element.